

**DESCRIPTIONS AND RECORDS OF NORTH AMERICAN MELOIDAE. I.**  
(COLEOPTERA)RICHARD B. SELANDER, *Illinois Natural History Survey*

The Meloidae described in this paper are additions to the fauna of the southwestern United States and northern Mexico. I am indebted to H. B. Leech, A. T. McClay, J. W. MacSwain, F. H. Parker, P. Vaurie, and F. G. Werner for supplying most of the material upon which the paper is based.

***Pyrota bicurvata*, new species**

*Pyrota virgata* [error for *divirgata*], Schaeffer, 1905, Mus. Brooklyn Inst. Arts and Sci., Sci. Bull. 1:177. Misidentification.

*Pyrota tenuicostatis*, Dillon, 1952, Amer. Midland Nat. 48:360. Misidentification, in part.

Yellow-orange, the elytra paler. First two segments of antennae and first three segments of maxillary palpi orange, the other segments black. Labrum largely or completely black. Head with one or three black spots on neck, occasionally with some black on gula, always with a pair of black spots on frontal area between eyes. Pronotum with a pair of large, black discal spots just behind middle and a pair of smaller spots on each side, one just anterior to discal spots and the other on the anterior angle of the pronotum, not quite attaining the margin; occasionally there are one or more black spots on each of the posterior angles of the pronotum. Elytra each with a large, oval black scutellar spot and a moderately broad black discal vitta which, except where it is narrowed to avoid the scutellar spot, is about one-third the width of the elytron. Fore and middle coxae orange; hind coxae varying from black tipped with orange to largely orange. Femora and tibiae cleanly tipped with black. Under surface black with orange markings of variable extent; in the darkest specimens the margins of the thoracic sclerites, a broad marginal area of the fifth visible abdominal sternite, and the sixth visible sternite are orange; in the lightest the thorax is largely orange, the first four visible sternites are broadly bordered with orange, and both the fifth and sixth visible sternites are orange. Upper surface subglabrous; under surface sparsely clothed with short, pale pubescence. Length: 7-17 mm.

Head and pronotum smooth, shiny, with scattered larger punctures and fine, sparse micropunctures. Pronotum depressed anteriorly, one-fifth to one-fourth longer than broad. Elytra finely, densely punctate; surface finely granulose, not at all rugulose, less shiny than head and pronotum, not swollen between costulae.

First segment of middle and hind tarsi with pad (pale pubescence) limited to apex or absent. Hind tibial spurs thickened and obliquely truncate, the outer spur heavier; truncature of outer spur usually broadly oval but varying occasionally to a more elongate and pointed form.

*Male*.—Antennae with segment II curved in the same direction as I; III strongly compressed and curved in the opposite direction (fig. 9). Last segment of maxillary palpi (fig. 1) modified but not greatly enlarged; length equal to about two-thirds distance between eyes on frontal area; beneath with sensory surface limited to basal half or less of segment, hardly or not at all concave. Fore tarsi somewhat expanded but not asymmetrically produced. Sixth visible abdominal

sternite with a relatively shallow, broadly triangular emargination;<sup>1</sup> membranous zone large, with much shorter setae along emargination and at center than along anterior and lateral margins. Genitalia as in figure 5; gonostyli nearly straight; dorsal hook of aedeagus sharply bent at apex.

*Female*.—Antennae with segments II and III at least slightly curved but III not compressed. Maxillary palpi and fore tarsi not modified. Sixth visible abdominal sternite obtusely emarginate, as in figure 7.

*Distribution*.—Gulf Coast from Texas to eastern San Luis Potosí.

*Type Material*.—Holotype male and allotype female from [Ciudad] Victoria, Tamaulipas, May 22, 1952, M. Cazier, W. Gertsch, and R. Schrammel, in the collection of the American Museum of Natural History. Paratypes: NUEVO LEÓN: 1 female, Linares, Sept. 11, 1947, F. Johnson donor, collectors C. and P. Vaurie; 1 female, Monterrey, June 15, 1941, H. S. Dybas; 2 females, Vallecillo, June 2-5, 1951, P. D. Hurd. SAN LUIS POTOSÍ: 1 female, 11 km. E Ciudad de Valles, May 29, 1948, tropical jungle pass, F. Werner and W. Nutting. TAMAULIPAS: 6 males, 7 females, eutotypical; 1 male, Ciudad Victoria, Sept. 11, 1947, F. Johnson donor, collectors C. and P. Vaurie; 1 male, Ciudad Victoria, Aug. 19, 1941, H. S. Dybas; 1 male, 1 female, Abasolo, May 17, 1952, M. Cazier, W. Gertsch, and R. Schrammel. TEXAS: 1 male, 3 females, state label only, Aug., 1904; 2 males, 11 females, Brownsville, May 30 and June 5, 1932, J. O. Martin; 1 male, Edinburg, S. Mulaik; 1 female, Edinburg, Hidalgo County, April, 1939, S. and D. Mulaik; 1 female, Harlingen; 1 female, Hearne, June 7, 1937, K. Maehler; 1 male, Naval Air Station, Corpus Christi, July 21, 1942, W. M. Gordon; 1 male, 1 female, Weslaco, Sept. 15, 1931, S. W. Clark. Paratypes in the collections of W. R. Enns, R. B. Selander, F. G. Werner, the American Museum of Natural History, the California Academy of Sciences, the Illinois Natural History Survey, and the University of California at Berkeley.

This species appears to be most closely related to *divirgata*, with which it has been confused. Although I have not seen the specimens from Brownsville, Tex., identified as *divirgata* by Schaeffer, his description leaves little doubt that they represent *bicurvata*. Schaeffer's record seems to have been the basis for the inclusion of *divirgata* in the Leng catalogue. True *divirgata* is not known to occur north of Veracruz.

In Dillon's report on the Meloidae of Texas at least one specimen of *bicurvata* (i.e., a male from Edinburg) was recorded under the name *tenuicostatis*. A number of additional specimens studied have been similarly misidentified by others. The species *tenuicostatis* apparently occupies the entire range of *bicurvata* but is known to extend farther south. I have seen specimens of *tenuicostatis* from Texas, Tamaulipas, and Veracruz. The species has been recorded also from Tabasco.

<sup>1</sup>In dealing with either sex of species of *Pyrota* it is usually necessary to relax specimens to determine the true form of this sternite.



lar to it in shape, not at all expanded or curved. Last segment of maxillary palpi (fig. 3) modified, greatly enlarged; length nearly or fully equal to distance between eyes on frontal area; beneath with sensory surface deeply concave, covering all but apex of segment. Fore tarsi somewhat expanded but not asymmetrically produced. Fifth visible abdominal sternite noticeably emarginate. Sixth deeply and acutely emarginate; membranous zone large, with setae of nearly uniform length. Genitalia as in figure 6, with a fairly wide range of individual variation: gonostyli divergent apically, strongly curved dorsad; dorsal hook of aedeagus slightly hooked at apex.

*Female*.—Maxillary palpi and fore tarsi not modified. Sixth visible abdominal sternite triangularly emarginate, as in figure 8.

This species, like *bicurvata*, seems to be most closely related to *divirgata*. Two subspecies of *trochanterica* may be recognized, as follows.

#### ***Pyrota trochanterica trochanterica* Horn**

*Pyrota trochanterica* Horn, 1894, Proc. Calif. Acad. Sci. (2)4:439.

More heavily marked with black than *t. weneri*. Neck, occiput, and gula black; vertex usually with black markings at sides, these often fusing with occipital marking; frontal area with a heavy spot, usually touching eyes and extending to lower margin of frontal area. Pronotum with a basic pattern of a pair of discal spots and a spot on each side anterior to the discal spots, but the pattern is masked to a greater or lesser extent by fusion of the spots; black markings reaching basal margin of pronotum. Scutellar spot and vitta of each elytron narrowly separated or fused. Femora black. Tibiae black for apical third (occasionally entirely black). Abdomen, except, usually, tip of sixth visible sternite of female, black. Length: 8-19 mm.

*Male*.—Fore tarsi more strongly expanded than in *t. weneri*.

*Distribution*.—Cape region of Baja California.

*Records*.—*Baja California Sur*: 10 mi. NW La Paz, Oct. 6, 1941, Ross and Bohart, 17; Sierra El Chinche, 2 (Horn type material).

*Type Locality*.—Sierra El Chinche, Baja California Sur. The type locality is a small mountain range about 10 miles north of San Lucas, Baja California Sur, at approximately 23°N-110°W (see Michelbacher and Ross, 1942, Proc. Calif. Acad. Sci., (4)24(1), pl. 3).

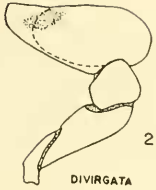
The frontal black mark is reduced in 6 of the 19 specimens studied to the small spot or pair of spots found in some *t. weneri*. The pronotal spots are fused on each side in all but 3 specimens and in these the lateral spots extend to the basal margin of the pronotum. In the

#### EXPLANATION OF FIGURES

Species of *Pyrota* as labeled.—Figs. 1 to 4, Right maxillary palpus of males, dorsal view (broken line indicates extent of ventral sensory surface); figs. 5 and 6, male genitalia, ventral and lateral views of gonoforeeps, and lateral view of aedeagus; figs. 7 and 8, sixth visible abdominal sternite of females; fig. 9, basal antennal segments of male, lateral and dorsal views. Localities for specimens figured: *P. bicurvata*, Ciudad Victoria, Tamaulipas; *divirgata*, Mexcala, Guerrero; *tenuicostalis*, Laredo, Tex.; *trochanterica*, Tucson, Ariz., (figs. 3 and 8) and 10 mi. NW La Paz, Baja California Sur (fig. 6).



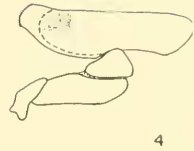
BICURVATA



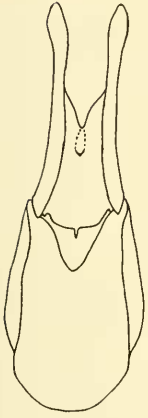
DIVIRGATA



TROCHANTERICA



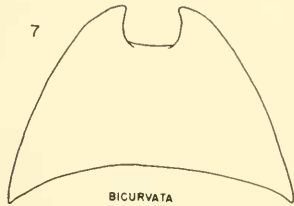
TENUICOSTATIS



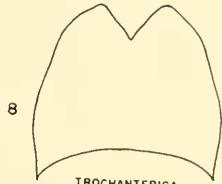
5



BICURVATA

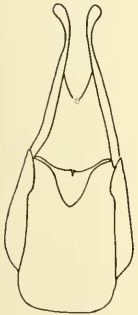


BICURVATA



8

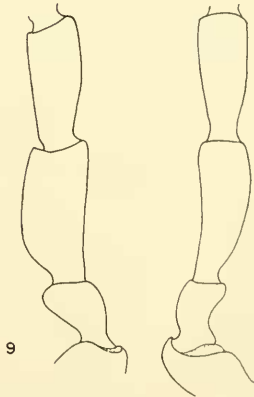
TROCHANTERICA



6



TROCHANTERICA



9

BICURVATA

most heavily marked specimens all but the midline of the pronotum is black. The scutellar spots are fused to the elytral vittae in 6 specimens.

The original description of *trochanterica* was based on specimens from the collection of the California Academy of Sciences. Material returned to the Academy by Horn consists of 2 female syntypes. From this material I hereby designate as the lectotype of *trochanterica* the specimen labeled as follows: Sierra El Chinche, Horn type, No. 164B, 10.744. Lectotype *trochanterica* [Van Duzee's unpublished designation (Leech, *in litt.*)], Type No. 158.

#### ***Pyrota trochanterica wernerii*, new subspecies**

Less heavily marked with black than *t. trochanterica*. Dorsal black marking of head reduced, confined largely or entirely to neck, usually divided to form three spots; sides of vertex unmarked; frontal area immaculate or with a small spot or pair of spots between eyes. Pronotum with a pair of discal spots behind middle and usually a smaller spot on each side just anterior to discal spots; spots well separated, not approaching basal margin of pronotum. Scutellar spot and vitta of each elytron well separated. Femora and tibiae orange tipped with black. Hind margin of abdominal sternites occasionally orange. Length: 7-17 mm.

*Male*.—Fore tarsi less strongly expanded than in *t. trochanterica*.

*Distribution*.—Southern Arizona to Guaymas, Sonora. In all probability the range of *t. wernerii* is continuous through northern Sonora. The existence of a contact with the range of *t. trochanterica* seems improbable.

*Type Material*.—Holotype male and allotype female from Guaymas, Sonora, Aug. 5, 1940, R. P. Allen, in the collection of the California Academy of Sciences. Paratypes: SONORA: 1 female, Empalme, Aug. 6, 1940, R. P. Allen; 4 males, eutopotypical; 1 male, 1 female, Guaymas, Aug. 28, 1955, Z. B. Noon, Jr. [taken at light (Werner, *in litt.*)].

*Additional Material*.—ARIZONA: Organ Pipe Cactus National Monument, Pima County, Aug. 6, 1955, F. G. Werner and G. D. Butler, 1; Thatcher, Aug. 13 and 16, 1950, E. J. Taylor, 2; Thatcher, Aug. 18, 1951, W. Taylor, 1; Tucson, Aug. 1, 1937, F. H. Parker, 1; Tucson, Oct. 1, 1932, F. H. Parker, 1; Tucson, Sept., 1948, V. G. Cochran, 1; Tucson Mountains (Desert Museum), Aug. 12, 1955, light trap, G. Butler and F. Werner, 7. Paratypes and other material in the collections of F. H. Parker, R. B. Selander, F. G. Werner, the California Academy of Sciences, the University of Arizona, and the University of California at Davis.

All specimens from Sonora are typical, as described above. Specimens from Arizona differ consistently in that the black femoral marking is more extensive, especially on the posterior surface and dorsal edge, covering as much as half the surface area of the segment. This condition presumably reflects the influence of *t. trochanterica* on the population in Arizona, but if such is the case, it is unusual that samples of the population are, on the average, no more heavily marked with black on the head and body than material from Sonora. Al-



though perhaps entitled to subspecific status separately, the population in Arizona is for the present assigned to *t. werneri*.

***Lytta arizonica*, new species**

Closely related to *mirifica* Werner, from which it differs as follows:

Head black, suffused with dark orange or piceous on frontal area. Pronotum yellow-orange, transversely oval in shape, proportionately broader (except in 1 specimen), averaging (13 specimens) 0.15 (0.11-0.22) broader than long; sides more evenly rounded, especially from middle to apex. Apex of scutellum broader, pale in color. Elytra strongly, rather finely reticulate, all or nearly all cells less than 0.5 mm. in diameter. In *arizonica* the elytral reticulations are nearly as fine as in *deserticola* Horn; in *mirifica* they are as coarse as in *reticulata* Say. Immediate base of elytra sometimes washed with orange. Wings uniformly dark brown. Length: 13-20 mm.

*Male*.—Genitalia with fused gonocoxites (basal piece) generally slightly shorter and more truncate.

*Type Material*.—Holotype male and allotype female from Littlefield, Arizona, April 20, 1930, W. J. Gertsch, in the collection of the American Museum of Natural History. Paratypes: 11 (male and female), eutopotypical. Paratypes in the collections of R. B. Selander, F. G. Werner, and the American Museum of Natural History.

The type locality of *arizonica* is in the Valley of the Virgin River in the northwestern corner of Arizona; *mirifica* is known only from its type locality at Anthony, New Mexico. Both species appear to be extremely rare.

(Date of publication, Vol. 59, No. 2, was May 8, 1957.)



**NEW AMMUNITION?**

Search for improved insecticides and fumigants gets high priority at DIAMOND's enlarged Research Center. Increasing sales of our own products give evidence of this interest. We welcome requests for cooperation on research and development projects.

  
**DIAMOND ALKALI  
COMPANY**  
 Cleveland 14, Ohio